APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
COLON, CATHERINE M

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/819,975	BRUCE, ELISA M.
	Examiner	**Art Unit**
	C. Michelle Colon	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The following is a Non-Final Office Action in response to the communication

received on March 29, 2001. Claims 1-20 are now pending in this application.

Specification

2.   The abstract of the disclosure is objected to because of the use of the phrase,

"means for." Correction is required. See MPEP § 608.01(b).

        Applicant is reminded of the proper language and format for an abstract of the
disclosure.

        The abstract should be in narrative form and generally limited to a single
paragraph on a separate sheet within the range of 50 to 150 words. It is important that
the abstract not exceed 150 words in length since the space provided for the abstract
on the computer tape used by the printer is limited. The form and legal phraseology
often used in patent claims, such as "means" and "said," should be avoided. The
abstract should describe the disclosure sufficiently to assist readers in deciding whether
there is a need for consulting the full patent text for details.

        The language should be clear and concise and should not repeat information
given in the title. It should avoid using phrases which can be implied, such as, "The
disclosure concerns," "The disclosure defined by this invention," "The disclosure
describes," etc.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 2, 4, 7, 13-16 and 18 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

Regarding claims 2, 4, 16 and 18, the term, "namely," is similar in connotation to the terms, "comprising" or "consisting of." However, it is unclear as to whether the scope of the term, "namely," is meant to be open-ended like the term, "comprising," or if it is meant to be closed like the term, "consisting of." Accordingly, this renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 7 recites, determining at least one scheduling/operations driver of the activities by determining what entities or resources affect the metrics of the activities *by 50% or more*. It is unclear how this determining step measures the percentage of affected activities and more specifically, how it measures that *50% or more* activities have been affected.

Claim 13 is indefinite because it recites, "means for" in the preamble as well as in the body of the claim. Since the "means for" in the preamble denotes a structure, as in an apparatus, it is unclear if the "means for" recitations in the body are referring to the same or different structure than in the preamble. Examiner suggests amending the preamble to recite a system or apparatus in place of "means for" to eliminate the ambiguity.

Claims 13 and 14 in several limitations recite, "…where $N = 1$ to ∞" It appears improbable that an invention would be able to handle an infinite number of jobs as the processes would never end and thus, never get to the end of the processing time, T_{FINISH}, and therefore, never reach the evaluating step that occurs after T_{FINISH}. If applicant's intention of the use of ∞ is to imply that the invention can process a large

number of jobs, Examiner suggests amending the claims to recite more definite

language to denote a large number of jobs.

Claim 15 recites the limitation "the method" in line 1. There is insufficient

antecedent basis for this limitation in the claim. It is unclear if this is a typographical

error or that claim 15 should depend from claim 14 instead of claim 13 since claim 14 is

a method.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.   Claims 1-12, 14 and 16-20 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

As per the first prong of the test, for a claimed invention to be statutory, the

claimed invention must be within the technological arts. Mere ideas in the abstract (i.e.,

abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or

advance the technological arts fail to promote the "progress of science and the useful

arts" (i.e., the physical sciences as opposed to social sciences) and therefore are found

to be non-statutory subject matter. For a process claim to be satisfactory, the recited

process must somehow apply, involve, use, or advance the technological arts.

In the present case, method claims 1-12, 14 and 16-20 merely recite the steps for controlling a process having activities to achieve desired goals; however, the recited steps do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in person or by use of a pencil and paper and without the need of a computer or other technology.

As per the second prong of the test, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention controls a process having activities (i.e., concrete) to achieve desired goals (i.e., useful and tangible).

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1-12, 14 and 16-20 are directed to non-statutory subject matter.

Claim Objections

7.   Claims 1, 7, 13 and 14 are objected to because of the following informalities:

Claims 1 and 7 recite, "...based the evaluation..." The claims should recite, "...based *on* the evaluation..." [Emphasis added]

Claims 13 and 14 recite, $_{FINISH}$, on lines 17 and 11, respectively. The claims should recite, T_{FINISH}.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by

Chapman et al. (U.S. 5,255,181).

As per claim 1, Chapman et al. discloses a method of controlling a process

having activities to achieve desired goals, the method comprising the steps of:

mapping the activities based on their time scheduling relative to each other (col.

3, lines 55-61; col. 6, lines 1-12; col. 8, lines 5-10; The system discloses plans, which

contain an ordered collection of processes in order to accomplish organizational goals.

The plan also determines the timing for the processes.);

determining at least one scheduling driver of the activities (col. 10, lines 7-9; col.

16, lines 14-27; Priority data controls the scheduling of activities, in particular, the order

in which lots are processed. The priority value assigned to a lot is evaluated by all

activities (i.e., 100%).);

measuring the metrics of the at least one scheduling driver (col. 10, lines 7-9; col.

16, lines 14-27; The priority data is a number indicative of an order in which a lot is to be

processed. The priority data is measured in an amount of time to process a lot.);

determining at least one operations driver of the activities (col. 4, lines 38-45;

Capability limits are identified for resources, thus controlling the operation of processing

an activity with a particular resource. The capability data assigned to a resource is evaluated by all activities (i.e., 100%).);

measuring the metrics of the at least one operations driver (col. 4, lines 38-45; col. 10, lines 32-35; Metrics for capability limits can be measured in a variety of ways such as temperature requirements of a resource, or quantity requirements for a resource.);

evaluating driver metrics accounting for the relative effects of the at least one scheduling driver and the at least one operations driver on the process (col. 12, lines 26-42; Priority and capability data are defined for lots and resources in order to understand the constraints involved with implementing a plan.);

controlling the process by controlling the drivers, based the evaluation of the driver metrics, such that the desired goals of the process are achieved (col. 9, lines 55-61; col. 10, lines 2-9 and 26-35; col. 12, lines 26-31; Users may specify the data for the priority and capability drivers, thus controlling the drivers and the process to achieve desired goals.).

As per claim 2, Chapman et al. discloses the method of claim 1, wherein the scheduling driver is derived by determining what attributes, namely what activities, resources, input entities, output entities or controls, most significantly affect the scheduling of activities within a process (col. 4, lines 57-61; col. 10, lines 1-17; The priority data (i.e., scheduling driver) determines the order that particular resources are used for particular processes (i.e., what inputs are used for which activities).).

As per claim 3, Chapman et al. discloses the method of claim 1, wherein driver metrics are measured by measuring the metrics of the attributes of the driver which are considered to be the selection criteria of the driver (col. 9, lines 55-61; col. 10, lines 2-9 and 26-35; col. 12, lines 26-31; The system discloses measuring the metrics for the drivers, whose attributes have been user defined.).

As per claim 4, Chapman et al. discloses the method of claim 1, wherein the operations driver is derived by determining what attributes, namely what activities, resources, input entities, output entities or controls, most significantly affect the operation metrics of the process (col. 4, lines 26-45; col. 10, lines 26-36; The capability data (i.e., operations driver) is an attribute describing the quantity or character of or required by a resource.).

As per claim 5, Chapman et al. discloses the method of claim 1, wherein evaluating driver metrics further comprises evaluating the driver metrics measured directly as well as evaluating the driver metrics as they relate to the metrics of the overall process (col. 9, lines 55-61; col. 10, lines 2-9, 26-35 and 59-61; col. 11, lines 19-29; col. 12, lines 26-31; The system discloses measuring the metrics for the drivers, whose attributes have been user defined, as the drivers affect the overall process goals.).

As per claim 6, Chapman et al. discloses the method of claim 1, wherein controlling the process is done by controlling drivers which directly affect the overall process (col. 9, lines 55-61; col. 10, lines 2-9 and 26-35; col. 12, lines 26-31; Users may

specify the data for the priority and capability drivers, thus controlling the drivers and the process to achieve desired goals.).

As per claim 13, Chapman et al. discloses a continuous and automatic data collection means for continuously evaluating a project over a period of time from T_1 to T_{FINISH},

the project is comprised of individual activities or jobs J_N, where N = 1 to ∞ (col. 3, lines 55-67; col. 9, lines 47-54; col. 22, lines 17-20; A plan is comprised of at least one process, where the process is defined as an activity or group of activities. The system loops through processes if it detects another activity/lot is waiting, thus being able to process an infinite number of activities/lots.),

data collected is comprised of individual data sets DS_N, where N = 1 to ∞ (col. 4, lines 3-9 and 20-40; col. 10, lines 32-35; col. 22, lines 17-20; Each activity contains resources and lots with associated attribute and characteristic data. The system loops through processes if it detects another activity/lot is waiting, thus being able to collect an infinite number of data sets on the resources/lots.),

the period of time is comprised of individual units of time T_N, where N = 1 to ∞ (col. 18, lines 10-14 and 47-48; col. 22, lines 17-20; Timing data determines when processes start and stop. The system loops through processes if it detects another activity/lot is waiting, thus being able to process activities/lots during an infinite amount of time.),

said data collection means comprising:

a means for sending a signal S_1 for collection DS_1 on J_1 at T_1 (col. 7, lines 52-66;

The system sends signals both automatically and with human intervention to define

resource and lot data to cause activities/processes to occur.);

a means for collecting DS_1 on J_1 at T_1 by data entry to a central computer system

(col. 7, lines 52-col.8, lines 2; col. 10, lines 32-35; The system allows manual entry of

resource and lot data in order for a user to generate a plan or schedule.);

a means for storing DS_1 or J_1 at T_1 in the central computer system (col. 8, lines

15-17; Figure 1; The user entered data is stored on a mass storage memory device.);

a means for sending a signal S_2 for collecting DS_2 on J_1 at T_2 (col. 7, lines 52-66;

The system sends signals both automatically and with human intervention to define

resource and lot data to cause activities/processes to occur.);

a means for collecting DS_2 on J_1 at T_2 by data entry to the central computer

system (col. 7, lines 52-col.8, lines 2; The system allows manual entry of resource and

lot data in order for a user to generate a plan or schedule.);

a means for storing DS_2 on J_1 at T_2 in the central computer system (col. 8, lines

15-17; Figure 1; The user entered data is stored on a mass storage memory device.);

a means for repeating the above steps for all J_N from T_1 to T_{FINISH} for project (col.

8, lines 52-58; The system continually repeats and reevaluates processes in order to

evaluate the performance of the plan to determine any deviation from the organizational

goals of the plan.); and

a means for evaluating the project quantitatively with all DS_N for all J_N at periodic

intervals of time (col. 8, lines 52-58; col. 25, lines 46-49; The system continually repeats

and reevaluates processes in order to evaluate the performance of the plan to

determine any deviation from the organizational goals of the plan.).

Claims 7-12 and 14-20 recite substantially similar subject matter as claims 1-6

and 13 above. Therefore, claims 7-12 and 14-20 are rejected on the same basis as

claims 1-6 and 13 above.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Flores et al. (U.S. 5,630,069) discusses a method for creating workflow maps;

- Sandoval (U.S. 6,345,259) discusses a system and method for integrating

  business and manufacturing environments;

- Bond (U.S. 6,738,736) discusses a method for capacity modeling and planning;

- Crampton et al. (U.S. 6,415,196) discusses a manufacturing scheduling process;

- Caswell et al. (U.S. 6,336,138) discusses model generation on network services;

  and

- Smith et al. (U.S. 6,609,100) discusses program planning management.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to C. Michelle Colon whose telephone number is 703-605-

4251. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 703-305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

703-872-9306   [Official Communications; including After Final

communications labeled "Box AF"]

703-746-7202   [For status inquiries, draft communication, labeled

"Proposed" or "Draft"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA 7th floor receptionist.

cmc
January 24, 2005

SUSANNA M. DIAZ
PRIMARY EXAMINER
AU 3623